## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| In re application of: | Confirmation No.: (to be assigned) |
| Siavash Fallahi | Art Unit: (to be assigned) |
| Appl. No. (to be assigned) (Continuation Application of Appl. No. 09/986,752; Filed: November 9, 2001) | Examiner: (to be assigned) |
| Filed: Herewith | Atty. Docket: 1875.1200002 |
| For: **A Constant Impedance Filter** | |

## Preliminary Amendment

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Prior to examination of the captioned application, Applicant submits the following Preliminary Amendment in the following format:

(A) A clean version of each replacement paragraph/section/claim along with clear instructions for entry;

(B) Starting on a separate page, appropriate remarks and arguments. 37 C.F.R. § 1.121 and MPEP 714; and

(C) Starting on a separate page, a marked-up version entitled: "Version with markings to show changes made."

It is not believed that extensions of time or fees for net addition of claims are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 19-0036.

### *Amendments*

### *In the Specification:*

Please replace the paragraph on page 1 under "Cross Referenced to Related Applications", as follows:

This application is a continuation of U.S. Patent Application No.09/986,752, filed on November 9, 2001, which claims the benefit of U.S. Provisional Application No. 60/246,991, filed on November 9, 2000, both of which are incorporated by reference herein in their entirety.

### *In the Claims:*

Please cancel claims 1-22.

Please add the following new claims 23 -34:

23. (new)  A filter, comprising:

n-number of first filter poles between an input and a first output of the filter that are series connected with each other, (n-1) of said first filter poles terminated in a resistor; and

m-number of second filter poles that are series connected with each other, a first of said m-number of said second filter poles coupled to one of said first filter poles that is not terminated with said resistor, and a last of said m-number of said second filter poles providing a second output of the bandpass filter;

wherein said n-number of first filter poles are configured to provide a first constant input impedance over frequency to said n-number of first filter poles, and said m-number of second filter poles are configured to provide a second constant input impedance over frequency to said m-number of second filter poles.

24. (new) The filter of claim 23, wherein said first constant input impedance is equal to said second constant input impedance.

25. (new) The filter of claim 23, wherein said first filter poles are low pass filter poles, and said second filter poles are high pass filter poles.

26. (new) The filter of claim 23, wherein said first filter poles are differential filter poles.

27. (new) The filter of claim 23, wherein said second filter poles are differential filter poles.

28 (new) The filter poles of claim 23, wherein said first filter poles are terminated in a resistor $R_1$ and said second filter poles are terminated in a resistor $R_2$.

29.(new)   The filter poles of claim 28, wherein said resistor $R_1$ = resistor $R_2$.

30. (new) A method of filtering an input signal, comprising:

receiving an input signal;

lowpass filtering said input signal with a set of first filter poles having a first constant impedance over frequency, so as to output a first filtered signal;

tapping off a tapped signal from said set of first filter poles; and

highpass filtering said tapped signal with a second set of filter poles having a second constant input impedance verses frequency, so as to generate a second filtered signal.

31.(new)      The method of claim 30, wherein a subset of said first set of filter poles are terminated in a resistor $R_1$, said step of tapping including the step of tapping said tapped signal from a filter pole of said first set of filter poles that is not terminated with said resistor $R_1$.

32. (new)      The method of claim 31, wherein said first constant impedance is determined by said resistor $R_1$.

33. (new)    The method of claim 32, wherein said second constant impedance is determined by a resistor $R_2$ in said second set of filter poles.

34. (new)    The method of claim 33, wherein said resistor $R_2$ is equal to said resistor $R_1$.